Colonel Steven Mains was commissioned a Cavalryman from the United States Military Academy. In his career, he has served in a variety of operational and analytic assignments in Germany, Iraq, Afghanistan, Kosovo and the US. He founded the Joint Center for Operational Analysis, a joint-level lessons learned organization, and now serves as the Director of the Center for Army Lessons Learned, part of the US Combined Arms Center at Fort Leavenworth, Kansas. He holds a Ph.D. in Computer Science from the College of William and Mary and is a 2005 graduate of the Indian National Defence College in Delhi.

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– Colonel Steven Mains

➢ **Whatís CALL all about? What lessons should/ can companies learn from this experiment?**

The Center for Army Lessons Learned (CALL) is an organization, started in 1985, designed for the sole purpose of learning from active operations, training and experimentation in order to adapt faster than our adversaries. We capture what is going right and share that across the US Army and our allies so that everyone can learn from othersí success in near real-time and not have to learn everything for himself. We also capture the challenges encountered, and share those around the Armyóto schools, training centers, development organizations, other units, staffsóto find solutions. By doing that, if others have developed solutions we can share them directly. If a problem is new, we can alert the appropriate agencies to the problem and get them to work on solving it. We help the Army leadership track these problems to resolution, so we really are involved in learning from end-to-end.

One initiative we have started in the last 18 months to enhance our ability to identify and really learn lessons is the Lessons Learned Integration Network, or L2I as we call it. Under L2I, we have placed CALL analysts in every Army school and military unit at Division level (so, in organizations of about 20,000 people that include all types of skills from combat units to supply and transportation as well as planning and operations functions). We link these analysts together in a network that allows them to quickly put lessons into a database and get tailored alerts when anyone else adds a lesson that they have said they would be interested in. This helps them tailor their input to the unit or school and make sense of the huge amount of data that is out there. No one in the Army ñ or I would say in business as well ñ is hurting for lack of data. What we need is ways to make sense of the abundance that is available.

By building this network, we say that we have placed the Soldier in Afghanistan or Iraq just ìtwo handshakesî away from the instructors, trainers and doctrine writers located back in the US. Instead of instructors

teaching new Soldiers about how things were when they were deployed abroad, they can talk about what was happening yesterday. We have documented lessons moving just that fast between actual operations and our training centers.

➢ **What is the importance of KM initiatives? Can you give us, apart from the L2I initiative, any successful illustrations of KM practices improving organizational performance?**

L2I has become our ìfaceî out in operational units and in our schools, which has closed the distance between those conducting operations, those training to conduct operations and those that are teaching new Soldiers. We have long collected lessons and produced products focused on those lessons. We get emails and calls all the time from Soldiers who say that they read our handbooks, performed their operations the way we said others had found successful, and that they were successful. We have a very large database of lessons that people can search for on their particular area, or by the mission they will perform. Letís say that there is a suboceanic earthquake that causes a tsunami as we saw back in 2004. A unit that is alerted to help in relief operations can call up the orders and lessons from the 2004 operation and use them as a basis for the new operation. We operate 24/7 so anyone in the Army can access us anytime. We also provide a research service so if operations are occurring quickly, as in the tsunami example, where time is critical to get to the affected area, we will search our database and provide tailored reports to the users so that they can worry about moving their unit and incorporating lessons we find and let us worry about doing the research.

➢ **You have observed in one of your articles (ìFreeing Ideas From Their Silosî, *strategy+business*) that, ìMost companies are awash in insights and ideas that emerge from specific situations but that could apply broadly across the organization to solve problems, promote effi-**

ciency, and even generate revenue. The trouble is that these valuable ideas get stuck in the silos of their organization and are never used to their full potentialî. Why do you think it happens that way?**

We are all goal oriented whether we are in the military or successful in business. We are ìhardwiredî to overcome challenges and move on to knock out the next. Unfortunately, we do not necessarily take the time to think about whether what we learned would be useful to others in our same organization. SLA Marshall, in his WWII book, *Men Against Fire*, said the hardest thing to do is to get a good idea out of one unit and into another. In business world, there is a profit motive away higher-level managers to capture and share the lessons across the lower levels, but at the managerís own level, he sees value in moving on to his next challenge, not necessarily sharing knowledge with his peer organizations. It takes a change in mindset from competition to cooperation. What may not benefit me directly today (sharing with my peer-level organizations) could be of value later (when they reciprocate).

➢ **What do you think are the CSFs for any KM initiative? Do they change across the industries and regions?**

The Critical Success Factor is the buy-in of the organization. There has to be an emphasis on learning from bottom to top in an organization or the system will break down. If the boss does not believe in learning from his mistakes and sharing knowledge, no one below him will. The managers have to lead organizations and set the example for their lower-level managers and floor workers. They have to ìsellî their managers on cooperation and sharing knowledge. If they do not do these things, the money spent on the databases, networks and people is wasted.

➢ **Just the way companies have their Corporate Strategy, Business Strategy, Marketing Strategy and Growth Strategy, should they also have a KM Strategy? If yes, what should be the components of a KM Strategy? If not, why?**

I think it is essential for corporate leaders, like military leaders, to think through and implement a KM strategy. Knowledge sharing will not happen by accident. If there is no strategy, knowledge tends to remain local. There is a need to share information across a corporation so that what is developed in one manufacturing unit can benefit another, but also share across time so that the knowledge older workers have gained through experience is passed on to younger workers. Business is too competitive to suffer a drop in capabilities with each retirement or reassignment. There has to be a common way to store and retrieve data across a company so that everyone can tap into the data stored at other locations. This allows someone to look for solutions others have developed, without having to disrupt the organization ñ if it is too hard or too disruptive to others, people just wonít do it and will have to conduct discovery learning. Organizations that can reduce that friction gain a competitive advantage.

➢ **Whatís the role of technology in making KM strategy successful?**

Technology is very important but is only one leg of the three-legged stool ñ the others being people and processes. It has to be intuitive and effective in storing, sharing and accessing data. Moreover, it does not necessarily have to be that advanced. It just has to be sufficient for the desired purpose. The more bells and whistles, the harder a system generally is to operate and the less likely to be used. Part of the KM strategy is matching the tools to the task.

➢ **Some companies have Chief Knowledge Officers (CKOs) and few KM experts advocate that companies would be better served by CKOs. In your opinion, what is the desirability of having CKOs on the board and what purpose do you envisage they would serve?**

I think a CKO is a great idea to do a couple of things: provide access to the CEO so as to get buy-in from the corporate leadership for a KM strategy that is integrated into all facets of the organization, to get access to the

resources required to implement a KM strategy across a corporation and to send the message to the business units that KM is important to the boss ósubordinates do best those things that the boss thinks are important. Having a CKO runs a risk, however. If the KM strategy simply becomes a process to feed the CEO and the Board of Directors but has little impact on the rank and file workers, it is doomed. The ability to reduce internal corporate friction occurs at the lower levels as much or more than at the higher levels. It is simply a function of the geometric nature of most companiesóthere are many workers at the lower levels and just a few higher-level managers. Understandably, the decisions become more important as one goes higher, so it is not a perfect comparison, but the sum of the many small impacts on each low-level worker tends to outweigh the impacts at higher levels. The CKO needs to understand that his biggest contribution is on the shop floor even while he interfaces daily with top management.

➢ What kind of organizational structure and organizational culture do you propose for fostering knowledge collaboration and hence benefit from it?

I mentioned earlier about going from a competitive environment to one of cooperation. Sharing lessons across business units requires managers and workers that are open to documenting their successes as well as their challenges. They all have to be willing to learn from others. As an example, we had an organization that was convinced that they had nothing to learn from the rest of the Army. They also viewed our analyst as a ìspyî placed in their organization to keep an eye on them. We ensured the organization that our analyst would pass no information back to CALL (and the rest of the network) without their permission. After several months of work, our analyst was able to assist them with several challenges they had and kept faith by only passing approved information back to the rest of the Army. In time, the flow of

information opened. The organization saw the benefit and wanted more, not less, cooperation. They still have not reached the level of cooperation we see in others, but they have come a long way.

➢ Is it correct to assume that KM practices are to be encouraged only/ more in knowledge-driven industries such as IT consulting, Telecom etc? Or should KMís reach be extended to other industries, as well? What have been your observations on this over the years?

KM is important in any industry. Any process can be made better and good ideas come from any business unit. And every organization has the problem with losing knowledge when key members retire or leave ñ and the key members are not always the ones at the top of the organizational chart. I talk about retaining knowledge from the lowest levels, but the people with their hands on the product as it goes through production (and that means knowledge products as well as physical) have the most direct impact on the customer, so we have to focus on them and make them the best they can be.

➢ What are the challenges in implementing an effective KM program?

Where should companies look for KM practices within their industry or outside their industry? The biggest challenge is recognizing that we all can learn from others and that by sharing we get better. We tell our children that to share is a virtue, but as we grow we say that knowledge is power and that sharing gives away power. In fact, sharing brings us power and makes all of us better than we otherwise would be.

➢ Generally people like to share their success stories and they take pride when these success stories are converted into best practices and are emulated. However, the same very people may not like to share their failures for the fear of ignominy, loss of credibility, etc. But failures do offer important lessons and therefore, how do you get people to share their failures so that failures are dissected and lessons are learnt?

Iím not sure that people like to share success stories as much as we might expect. In my experience, people are more focused on getting to the next challenge than telling others how they did X, Y or Z. They often donít realize that others have not figured out what they have learnt or they are afraid of sharing because they want to maintain a competitive advantage inside the company. We do try to make people ìheroesî by sharing their successes in order to gain buy-in from the organization for our efforts. We share challenges by taking the approach that if an organization was unable to accomplish a task to the desired standard, it was because the Army did not provide them the required training, personnel, or materiel. With this approach, commanders often tell us they thank God that we came to document the needs about which they have been telling their commanders. They know the challenges better than anyone because they live it every day. When we can document challenges across many organizations, it makes an impact on the Army leadership. It isnít just a single commander whining about something, it is a number of commanders sending a message to the leadership.

➢ In an increasingly globalized world, global corporations are locating in and operating out of multiple locales. How do you think such companies should foster knowledge collaboration, especially when the knowledge gained is country and culture specific?

Collaboration has to be regular and systematic to be effective in an organization. The context in which knowledge is gained is important, of course, and that always has to be considered. There are some lessons that are universal ñ how to build a better component, and many that rely on cultural or local context to be successful. When we capture lessons we put great effort into documenting the conditions under which they were successful. This allows others to quickly evaluate whether they want to adopt it. We try to leave that deci-

sion up to the lowest level manager we can so that the organization is as nimble as possible. Sometimes a manager will make the wrong decision or the lesson will turn out not to be transferable. Thatís a lesson too and, if we are honestly trying to learn, the experiment has to be underwritten by the management. Too many bad decisions and the manager has to go, of course, but we canít operate in a zero-defect environment. If we do, no one will do anything and we can guarantee that inaction will be the wrong action.

➢ **Thereís an often-repeated apprehension that, ëNo doubt there are enormous benefits if KM initiatives are envisaged and executed effectively. But the problem is, it is prohibitively expensiveí. Do you agree with this? If yes, how should, those companies keen on benefiting from KM programs, go about overcoming this impediment?**

There is a cost in implementing a program, but there is a cost in not implementing one. My recommendation to an organization contemplating a knowledge management program is to define some basic goals and start small in a way that targets those goals directly. Implement all three ìlegs of the stoolîópeople, processes and technologyóbecause leaving one out for fiscal reasons dooms the project. Set a fixed period of time for the experiment and stick to it. If the program shows promise it can be expanded. The worst thing that someone could do is to start with a huge ìenterprise solutionî to knowledge which will fail almost by definition. There are just too many unknowns at the beginning of the project. Start with basic goals, one of which has to be extensibility, so that things can be added and grown later as more is learned. Support the successes and trash the failures. Use the system yourself at the highest levels so you know what it really does and does not do. Only then will a system really develop benefits for the company.

➢ **Who would decide what should be shared and what should not be shared? After all, there can be confi-dential, out-of-public domain information.**

Information sharing is a key issue, in the military and in business. I always lean more to the sharing than the hiding side. My view is that if we all know the information, we can operate at a level higher than our competitors who will never be able to piece a full picture. If we restrict our own knowledge we put shackles on ourselves, most times unnecessarily. There will always be some information that needs to be safeguarded. The decision should be with the originator of the information because he usually is the one that has the most invested in the value of that information. In other words, if a business unit develops information on a manufacturing process, they have the most to lose if a competitor learns the process because it involves their competitive advantage. They also know whether information is common knowledge in the industry or whether it is novel. What looks novel from the board room is actually fairly routine on the shop floor. Or the turnover of people has rendered safeguarding it insufficient to justify the cost. Thatís not a decision that can be made at higher echelons. Keep it simple. Make decisions at as low a level as possible.

➢ **Of all the types of organizational settings, an army is a completely different organizational setup requiring and exacting secrecy and confidentiality. In such an organizational setting how do you ensure knowledge collaboration? There are risks after all. What kind of checks and balances, if at all, should be there?**

Most of what we do requires surprisingly little security. Our doctrine is completely unclassified because it is only a toolbox that a craftsman uses to build his creation. Buying (or stealing) an expensive toolkit does not make me a master carpenter. I need to train to use it. I need to think deeply about my craft. I need to discuss it with peers and experiment with ideas. If we made the tools classified, few could access and practice with them, to our detriment. There are real secrets, of course. When and where the attack will occur is the classic example. One minute after the attack kicks off, however, the secrecy is irrelevant because the enemy knows we are there. We need to be ready to move things down the classification ladder quickly to share knowledge for the benefit of all our forces. And I would say that lesson relates to business as well. Substitute attack with the word acquisition and you see what I mean.

➢ **Have you found any patterns in large organizations with respect to their KM approaches? What would you say have been same of the key developments in KM discipline in the last 20-30 years? How would you assess the current state of the practice of KM?**

I admit I am very critical of most KM efforts. I think our field has oversold KM as some kind of silver bullet or cure-all, to our own detriment. Many have sold KM as a way to cut people costs, when in fact, it will not save people at all. There has to be people in the loop to make it work. And I have never seen a KM project technology was simply laid onto the old structure that it succeeded. That just adds more work onto the existing employees. After the initial excitement over the new technology dies out, everyone goes back to what they were doing before. What KM will do, if it is done right, is make the company better. We have to remain focused on the idea that it isnít what the organization costs, but what it makes that counts. KM, of which lessons learned is a part, is all about increasing the bottom line óhowever that is measured, in my business, it is missions accomplished and lives saved, but it is equally true in any business. The increase in productivity has to outweigh the implementation costs and I think good KM can do that. There are no silver bullets and if someone offers you one, donít walk, run. 🙂